



Iowa Department of Public Health Bureau of Environmental Health Services

Frostbite

Overview: Frostbite is an injury to the body that is caused by freezing. Frostbite causes a loss of feeling and color in affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes. Frostbite can permanently damage the body and severe cases can lead to amputation. The risk of frostbite is increased in people with reduced blood circulation and among people who are not dressed properly for extremely cold temperatures.

Recognizing Frostbite

At the first signs of redness or pain in any skin area, get out of the cold or protect any exposed skin – frostbite may be beginning. Any of the following signs may indicate frostbite:

- A white or grayish-yellow skin area
- Skin that feels unusually firm or waxy
- numbness

A victim is often unaware of frostbite until someone else points it out because the frozen tissues are numb.

What to Do

If you detect symptoms of frostbite, seek medical care. Because frostbite and hypothermia both result from exposure, first determine whether the victim also shows signs of hypothermia, as described previously. Hypothermia is a more serious medical condition and requires emergency medical assistance.

If you suspect frostbite:

- Get into a warm room as soon as possible
- Unless absolutely necessary, do not walk on frostbitten feet or toes – this increases the damage.
- Immerse the affected area in warm, not hot, water (the temperature should be comfortable to the touch for unaffected parts of the body)
- Or, warm the affected area using body heat. For example, the heat of an armpit can be used to warm frostbitten fingers
- Do not rub the frostbitten area with snow or massage it at all. This can cause more damage.
- Don't use a heating pad, heat lamp, or the heat of a stove, fireplace, or radiator for warming. Affected areas are numb and can be easily burned.

These procedures are not substitutes for proper medical care. Hypothermia is a medical emergency and frostbite should be evaluated by a health care provider.

Preventing Frostbite

It is best to stay inside if possible, but if you must be outdoors during these extreme conditions, it is very important to protect yourself against frostbite. Cover all skin, including hands, head and ears, neck and face, if going outdoors for any length of time, even if only for a few minutes.